ORIGINAL

Before the **FEDERAL COMMUNICATIONS COMMISSION**

Washington, D.C. 20554

In the Matter of	DOCKET FILE COPY ORIGINAL.
Rulemaking to Amend Parts 1,)
21 and 25 of the Commission's Rules) CC Docket No. 92-297
to Redesignate the 27.5 - 29.5 GHz)
Frequency Band, to Reallocate the)
27.5 - 30.0 GHz Band, to Establish Rules	Property and the same of the s
and Policies for Local Multipoint	
Distribution Services and the	,
Fixed Satellite Service	MAR 1 2 1996
	State of the state
and) Grand of Charles
)
Suite 12 Group Petition for Pioneer's) PP-22
Preference)

OPPOSITION OF TELEDESIC CORPORATION TO PETITION FOR SUPPLEMENTAL COMMENTS OF QUALCOMM, INCORPORATED

I. INTRODUCTION

Teledesic Corporation ("Teledesic"), by its attorneys, hereby opposes the Petition for Supplemental Comments ("Petition") of QUALCOMM, Incorporated ("QUALCOMM") in the above-referenced proceeding. As discussed below, the Federal Communications Commission ("FCC") should dismiss or deny the QUALCOMM Petition because there is no factual or legal basis for the FCC to reopen the comment round. QUALCOMM's argument is premised solely on the baseless assumption that commenters did not expect that a designation of spectrum for non-geostationary orbit ("NGSO") satellite systems operating in the fixed

No rd Copies recta Of Y

Rulemaking to Amend Parts 1, 21 and 25 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band, to Reallocate the 27.5 - 30.0 GHz Band, to Establish Rules and Policies for Local Multipoint Distribution Services and the Fixed Satellite Service, FCC 95-287, CC Docket No. 92-297 (released July 28, 1995) ("Third NPRM") (entire proceeding referred to as the "28 GHz Band Proceeding").

satellite service ("FSS") would be considered at the 1995 World Radiocommunication Conference ("WRC-95"). Petition at 2-3. The record in this and in the WRC-95 preparatory proceedings establish that the designation of spectrum for NGSO FSS systems would be raised and addressed at WRC-95. It is preposterous for QUALCOMM to now claim surprise given the commitment by the FCC and the United States to a primary NGSO FSS designation before the current round of comments was solicited in this proceeding. QUALCOMM's self-serving position is not credible given the continuous active participation by QUALCOMM's principals in this process.

As Teledesic has emphasized before, until the FCC acts to adopt a band plan for the 27.5 - 30.0 GHZ band ("the 28 GHz band"), affected parties like QUALCOMM will continue to engage in gamesmanship to further their own private agenda. The resulting regulatory delay is inconsistent with the FCC's current efforts to streamline and reduce delay in its rulemaking proceedings and must not be tolerated. See Improving Commission Processes, PP Docket No. 96-17, FCC 96-50 (released Feb. 14, 1996); Commission Announces Streamlined Procedures for Rulemaking Proceedings Implementing the Telecommunications Act of 1996, FCC 96-81 (released March 1, 1996). The FCC's rulemaking proceedings, like its cut-off procedures, are intended to facilitate the introduction of new services to the public as soon as possible. See Petition of PanAmSat Licensee Corp. to Reopen the Ka-Band Satellite Application Processing Round. File No. 6-SAT-MISC-96. DA 96-178 (released Feb. 21, 1996). The FCC has committed to finalize a band segmentation plan in this proceeding by no later than next month. Reopening the comment round to address NGSO FSS will further delay the introduction of global broadband FSS, global mobile satellite service ("MSS") and

local multipoint distribution service ("LMDS") in the 17.7 - 30.0 GHz band ("the Ka Band"). Accordingly, the FCC must deny or dismiss the QUALCOMM Petition now and proceed immediately to designate and make unconditionally available now the 18.8 - 19.3 GHz and 28.6 - 29.1 GHz bands for domestic licensing for broadband NGSO satellite systems operating in the FSS.

II. DISCUSSION

A. The FCC Provided Adequate Notice And Opportunity For Comment On NGSO FSS

The notice and comment procedures of agency rulemaking are intended to encourage public participation in the administrative process, to help educate the agency and produce more informed decision making, not to reward persons who, through their own negligence or tactical calculation, have failed to participate in proceedings. In order to obtain "meaningful" participation from the public, courts have consistently held that a notice of proposed rulemaking must "fairly apprise interested persons" of the issues in the rulemaking. <u>United Steelworkers v. Marshall</u>, 647 F.2d 1189, 1221 (D.C. Cir. 1980), <u>quoting American Iron and Steel Institute v. EPA</u>, 568 F.2d 284, 293 (3d Cir. 1977).

In July 1995, the FCC provided explicit notice of its intention to secure comments in this proceeding on NGSO FSS, including sharing issues, in its proposal to designate 500 MHz of spectrum (in each direction) for NGSO FSS. Thus, in paragraph 127 of the <u>Third NPRM</u>, the FCC requested comment on rules that:

[S]hould be created for the NGSO/FSS systems . . . We request specific comment on any technical standards that should be adopted for NGSO/FSS systems that will facilitate sharing under our band segmentation plan.

Despite this explicit request, QUALCOMM chose not to provide timely comments or reply comments on this issue. Because comments were specifically sought on the NGSO FSS sharing issue in the <u>Third NPRM</u>, there is no legal basis to reopen the comment round.²

B. The FCC And The United States Have Continually Advanced A Domestic And An International Designation Of 500 MHz Of Spectrum For NGSO FSS

An examination of the record establishes conclusively and unequivocally that there is no factual basis or newly discovered information that might establish a basis for another round of comments. QUALCOMM's claim that commenters in the 28 GHz Band Proceeding "did not expect that NGSO/FSS technical criteria and assigned spectrum block would become a matter of some urgency" is absolutely false. The history of the 28 GHz Band Proceeding and the WRC-95 preparation process demonstrate an unwavering commitment by the FCC and the United States to secure a domestic and international designation of 500 MHz of primary spectrum for use by NGSO systems operating in the FSS. The United States success at WRC-95 on the designation of spectrum for NGSO FSS was completely consistent with the positions announced by the United States and the FCC in both the WRC-95 preparatory process and the Third NPRM.

QUALCOMM fails to cite to any legal authority supporting action by the FCC to reopen the 28 GHz Band Proceeding comment period. The reason for this omission is clear; no FCC precedent or rule explicitly provides for the FCC to take such action. FCC Rules only authorize the filing of comments and reply comments by parties in rulemaking proceedings, unless specifically requested or authorized by the Commission. 47 C.F.R. § 1.415(d). Although the FCC may waive Section 1.415(d) of its rules upon a showing of "good cause," QUALCOMM has failed to demonstrate that good cause exists to reopen the comment period in the 28 GHz Band Proceeding. See 47 C.F.R. § 1.3; see also Application of Dominion Video Satellite Inc., 10 FCC Rcd 12743 (1995); Ultracom of Marple, Inc., 10 FCC Rcd 6640 (1995); Meredith/New Heritage Strategic Partners, L.P., 9 FCC Rcd 6841 (1994); Amendment of Section 73.606(b), 53 RR 2d 53, 55 (1983) ("Our policy has been to consider all comments and proposals timely received in the course of rule making proceedings." (emphasis added)).

Specifically, during the WRC-95 preparation process, in June 1995 the United States determined that it would advance a proposal at WRC-95 for the designation of 500 MHz of primary spectrum to NGSO FSS systems. See Third NPRM, at paras. 56-58; United States Proposals for the 1995 World Radiocommunications Conference, at Document No. 015-E (July 11, 1995) ("U.S. NGSO FSS Proposal"). The U.S. proposal for an international designation of 500 MHz of spectrum for NGSO FSS announced in July 1995 came as no surprise to anyone active in the WRC-95 preparatory process -- and QUALCOMM was active in that process.³ Beginning in July 1994, Teledesic advocated the designation of sufficient spectrum for NGSO FSS and the elimination in specific bands of the international priority afforded geostationary orbit ("GSO") FSS by Radio Regulation 2613. Comments of Teledesic, IC Docket No. 94-31 (filed July 15, 1994). A notice of inquiry was issued in early 1995 to solicit comments from interested parties to assist the FCC in preparing for WRC-95. In response to Teledesic's comments, the FCC sought comments on the merits of designating primary spectrum to NGSO FSS systems. Preparation for International Telecommunications Union World Radiocommunication Conferences, 10 FCC Rcd 4169, 4191, n.74 (1995). After a thorough review of all comments, in June 1995 the FCC released its WRC-95 Report and recommended that WRC-95 make available internationally 500 MHz of spectrum on a priority basis for NGSO FSS networks. Preparation for International Telecommunications Union World Radiocommunication Conferences, 10 FCC Rcd 766, paras. 66, 69 and Appendix 1,

Both Teledesic and QUALCOMM participated actively in the WRC-95 preparation process. For example, in both the Industry Advisory Committee and in the National Committee, QUALCOMM actively campaigned against the United States pursuing the designation of 500 MHz of spectrum for NGSO FSS use at WRC-95. Similarly, QUALCOMM has taken an antagonistic position towards NGSO FSS issues in the WRC-97 preparatory process.

Section E. Thus, prior to the time the FCC solicited comments on its domestic band plan, the United States officially determined that the United States should advance a proposal at WRC-95 for the international designation of 500 MHz of spectrum for NGSO FSS on a priority basis.⁴ See U.S. NGSO FSS Proposal.

After the United States formulated its WRC-95 proposal for a 500 MHz NGSO FSS international designation, the FCC issued the Third NPRM, proposing the domestic designation of 500 MHz of spectrum on a primary basis to NGSO FSS systems. Third NPRM, at para. 56 and 147. This proposed primary domestic designation of spectrum for NGSO FSS, along with proposed designations of other primary spectrum in the 28 GHz band for terrestrial and other satellite services, were derived after more than two and one half years of careful evaluation and review by the FCC. The exhaustive FCC analysis included an extended negotiated rulemaking proceeding, comment and reply comments submitted in response to two separate notices of proposed rulemaking, and over a thousand written and oral ex parte presentations. Numerous parties submitted comments in each phase of this proceeding and comments were filed on the band plan by Loral/Qualcomm Partnership, L.P., in which QUALCOMM is partnered with Loral. See Comments of Loral/Qualcomm Partnership, L.P., CC Docket No. 92-297. Accordingly, QUALCOMM and all other affected parties knew since before the release of the Third NPRM that the U.S. would aggressively seek at WRC-95 a designation of 500 MHz of spectrum for NGSO FSS and that favorable action at WRC-95 certainly was a possibility given U.S. support.

The United States in its proposal stated that NGSO FSS appropriately fell under items 2.1 and 4 of the WRC-95 Agenda.

C. It Is Not Necessary For The FCC To Consider Intra-Service Sharing In The Domestic Band Plan For NGSO FSS

Information on NGSO FSS sharing is of absolutely no utility to the FCC in adopting a domestic band plan. In March 1994, over a year prior to adoption of the Third NPRM, Teledesic filed its application for FCC authority to construct, launch and operate a global NGSO broadband satellite system in 500 MHz of spectrum in the 28 GHz Band. Application of Teledesic Corporation for a Low Earth Orbit Satellite System in the Fixed Satellite Service, File Nos. 22-DSS-P/LA-94(840), 43-SAT-AMEND-95, 127-SAT-AMEND-95. On July 28, 1995, the FCC placed the Teledesic application on Public Notice and established a cut-off date of September 29, 1995, for competing applications and oppositions. During this 60 day period, no other applications for domestic NGSO satellite systems in the 28 GHz band were filed. Since Teledesic is the only cut-off NGSO FSS applicant for domestic use of the 28 GHz band, the issue of intra-service sharing among NGSO FSS applicants has been mooted.⁵

As Teledesic has demonstrated in prior filings in this proceeding, any designation of less than 500 MHz for NGSO service links would limit NGSO system capacity and would unfairly disadvantage NGSO systems vis-a-vis GSO broadband systems. Letter to Scott B. Harris, Chief, International Bureau, FCC, from Tom W. Davidson, Akin, Gump, Strauss, Hauer & Feld, L.L.P., Counsel for Teledesic (filed Feb. 7, 1996). In determining what is an adequate amount of spectrum to enable the deployment of NGSO FSS global broadband systems in the 28 GHz band, it is appropriate to look at the amount of spectrum required for a GSO FSS system. The same factors used to determine the amount of spectrum required for a GSO FSS system in the band also apply to the needs for a NGSO FSS system. In particular, GSO FSS systems and NGSO FSS systems share one essential constraining factor. That is, the total capacity that can be directed to any given geographic territory is limited to the capacity per beam which is tied directly to the amount of spectrum. Most of the GSO FSS applicants in the 28 GHz band have proposed to use at least 1000 MHz and some as much as 2,500 MHz. To be competitive with GSO FSS systems in any given market, NGSO FSS systems need access to a comparable amount of spectrum. The amount proposed for NGSO FSS systems is only half of the minimum 1000 MHz sought by GSO applicants, leaving more than adequate spectrum in the band where GSO FSS systems would continue to enjoy priority over NGSO FSS use.

In addition to use of this 500 MHz for service links, broadband NGSO satellite systems require operational flexibility to use some of this primary spectrum to accommodate critical operations of gateway terminals, such as command and control functions. Hence, the 500 MHz of spectrum may have to be utilized by both gateway terminals and service links. In addition, a designation of less than 500 MHz of spectrum to NGSO FSS use would provide no flexibility to coordinate around the entrenched fixed services nor GSO satellite uses of

To the extent technical studies concerning NGSO FSS sharing are required to advance U.S. positions at the 1997 World Radiocommunication Conference ("WRC-97"), these studies should be conducted in the WRC-97 preparation process through the Industry Advisory Committee and the ITU-R National Committee. These committees are specifically tasked with preparing technical analyses for WRC-97 and preparing recommended U.S. WRC-97 proposals.

D. Continued Regulatory Delay In Issuing A Final Report And Order Adopting The FCC's Band Plan Will Adversely Affect U.S. Success And Competitiveness In The Future

If the FCC does not deny the QUALCOMM Petition and act now to designate the 18.8 - 19.3 GHz and 28.6 - 29.1 GHz bands for broadband NGSO satellite service use, the ability of the United States to succeed on this and other issues at WRC-97 and future World Radiocommunication Conferences will be adversely affected. Throughout months of negotiations prior to WRC-95, the United States was aggressively advocating that minimum discrete blocks of 500 MHz of primary spectrum in the Ka band were necessary for deployment of viable NGSO FSS satellite systems. On the basis of the United States proposal and a proposal submitted by Indonesia, and in light of the vast potential benefits that NGSO satellite systems could provide. WRC-95 adopted a resolution identifying the 500 MHz sought by the U.S. for NGSO satellite systems. After working so aggressively and successfully for the broadband NGSO designation, the credibility of the United States clearly will suffer if the FCC does not move forward now without further delay and adopt a domestic band plan which provides the 500 MHz of primary spectrum to NGSO FSS so successfully advanced by the

the 28 GHz band that have coordination priority because their notification predates WRC-95.

United States at WRC-95. If the United States retreats from its WRC-95 position on broadband NGSO satellite service requirements and reopens comments on the NGSO FSS designation, future United States conference positions, not only for NGSO FSS, but also for the full range of U.S. interests at future conferences, such as GSO FSS, broadcast satellite service, the mobile satellite service and terrestrial services will be undermined. The potential harm to United States interests and the ultimate costs of diminished U.S. credibility in these international fora are incapable even of identification now.

There is a more general long-term U.S. interest at stake here. In recent years, a number of major NGSO satellite systems have been proposed to meet a range of service needs, most of which have been advanced by U.S. entities. While GSO satellites will continue to play an important role in space-based communications, particularly for broadcast applications, increasingly, they will share the field with these NGSO satellite systems. It is unlikely that the Teledesic satellite system will be the last iteration of this NGSO satellite technology. The U.S. has taken a leadership role in advancing these systems and the international regulatory action required to facilitate them, and likely will continue to do so given its combination of technical, financial and regulatory resources. It would be short-sighted for the U.S. to back off from the significant gains achieved at WRC-95, only to face the prospect of having to return later to seek additional NGSO spectrum with diminished credibility.

III. CONCLUSION

Based on the foregoing, Teledesic respectfully requests the FCC to dismiss or deny the QUALCOMM Petition because no valid legal or factual basis exists for the FCC to reopen the comment round in the 28 GHz Band Proceeding. Teledesic urges the FCC to put an end to the on-going gamesmanship among parties with vested interests in the outcome of the proceeding and move forward swiftly to adopt the band plan originally proposed in the Third NPRM. This plan has received near unanimous support of all of the affected parties.

Respectfully submitted,

TELEDESIC CORPORATION

By:

Tom W. Davidson, P.C.

Jennifer A. Manner, Esq.

Akin, Gump, Strauss, Hauer & Feld, L.L.P.

Gride, P.C.

1333 New Hampshire Avenue, N.W.

Suite 400

Washington, D.C. 20036

(202) 887-4000

(202) 887-4288 (Fax)

Counsel for Teledesic Corporation

March 12, 1996

CERTIFICATE OF SERVICE

I, Eileen O'Hara, an employee of Akin, Gump, Strauss, Hauer & Feld, L.L.P., certify that copies of the foregoing OPPOSITION OF TELEDESIC CORPORATION TO PETITION FOR SUPPLEMENTAL COMMENTS OF QUALCOMM, INCORPORATED were sent via First Class Mail or by Hand Delivery on this 12th day of March, 1996, to the following parties:

- *Chairman Reed E. Hundt Federal Communications Commission 1919 M Street, NW Room 814 Washington, DC 20554
- *Commissioner James H. Quello Federal Communications Commission 1919 M Street, NW Room 802 Washington, DC 20554
- *Commissioner Andrew C. Barrett Federal Communications Commission 1919 M Street, NW Room 826 Washington, DC 20554
- *Commissioner Susan P. Ness Federal Communications Commission 1919 M Street, NW Room 832 Washington, DC 20554
- *Commissioner Rachelle Chong Federal Communications Commission 1919 M Street, NW Room 844 Washington, DC 20554
- *Blair Levin, Esq.
 Office of Chairman Hundt
 Federal Communications Commission
 1919 M Street, NW
 Room 814
 Washington, DC 20554

- *Ruth Milkman
 Office of Chairman Hundt
 Federal Communications Commission
 1919 M Street, NW
 Room 814
 Washington, DC 20554
- *Julius Genachowski
 Office of Chairman Hundt
 Federal Communications Commission
 1919 M Street, NW
 Room 814
 Washington, DC 20554
- *Jackie Chorney, Esq.
 Office of Chairman Hundt
 Federal Communications Commission
 1919 M Street, NW
 Room 814
 Washington, DC 20554
- *Rudolfo M. Baca, Esq.
 Office of Commissioner Quello
 Federal Communications Commission
 1919 M Street, NW
 Room 802
 Washington, DC 20554
- *Lauren J. Belvin, Esq. Office of Commissioner Quello Federal Communications Commission 1919 M Street, NW Room 802 Washington, DC 20554

*Lisa B. Smith, Esq.
Office of Commissioner Barrett
Federal Communications Commission
1919 M Street, NW
Room 826
Washington, DC 20554

*Brian Carter Office of Commissioner Barrett Federal Communications Commission 1919 M Street, NW Room 826 Washington, DC 20554

*David R. Siddall, Esq.
Office of Commissioner Ness
Federal Communications Commission
1919 M Street, NW
Room 832
Washington, DC 20554

*Mary McManus, Esq.
Office of Commissioner Ness
Federal Communications Commission
1919 M Street, NW
Room 832
Washington, DC 20554

*Jane Mago, Esq.
Office of Commissioner Chong
Federal Communications Commission
1919 M Street, NW
Room 844
Washington, DC 20554

*Ms. Jill Luckett
Office of Commissioner Chong
Federal Communications Commission
1919 M Street, NW
Room 844
Washington, DC 20554

*Suzanne Toller, Esq.
Office of Commissioner Chong
Federal Communications Commission
1919 M Street, NW
Room 844
Washington, DC 20554

*Scott Blake Harris, Esq.
Bureau Chief
International Bureau
Federal Communications Commission
2000 M Street, NW
Suite 800
Washington, DC 20554

*Ms. Giselle Gomez International Bureau Federal Communications Commission 2000 M Street, NW Suite 800 Washington, DC 20554

*Dr. Robert M. Pepper Chief Office of Plans & Policy Federal Communications Commission 1919 M Street, NW Room 822 Washington, DC 20554

*Tom Tycz
Division Chief
Satellite & Radiocommunications Div.
International Bureau
2000 M Street, NW
Suite 800
Washington, DC 20554

*Donald H. Gips International Bureau Federal Communications Commission 2000 M Street, NW Suite 800 Washington, DC 20554 *Cecily Holiday, Esq.
Deputy Chief
Satellite & Radiocommunications Div.
International Bureau
Federal Communications Commission
2000 M Street, NW, Suite 800
Washington, DC 20554

*Jennifer A. Warren, Esq. Legal Advisor Wireless Telecommunications Bureau Federal Communications Commission 2025 M Street, NW Room 5002 Washington, DC 20554

*Jennifer Gilsenan, Esq.
Satellite Policy Branch
International Bureau
Federal Communications Commission
2000 M Street, NW Room 590
Washington, DC 20554

*Susan Magnotti, Esq.
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, NW
Room 8002A
Washington, DC 20554

*Gregory Rosston
Office of Plans & Policy
Federal Communications Commission
1919 M Street, NW
Room 822
Washington, DC 20554

*Mr. Robert James
Private Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, NW
Room 8010-B
Washington, DC 20554

*Karl A. Kensinger, Esq. International Bureau Federal Communications Commission 2000 M Street, NW Room 800 Washington, DC 20554

*Ms. Joslyn Read Satellite & Radiocommunications Div. International Bureau 2000 M Street, NW Suite 800 Washington, DC 20554

*David Wye Wireless Telecommunications Bureau Federal Communications Commission 2025 M Street, NW Room 5002 Washington, DC 20554

*Michele C. Farquhar, Esq. Wireless Bureau Federal Communications Commission 2025 M Street, NW Room 5002 Washington, DC 20554

Veronica M. Ahern Nixon Hargrave Devans & Doyle, LLP One Thomas Circle, NW Suite 700 Washington, DC 20005

Gerald Musarra
Space & Strategic Missiles Sector
Lockheed Martin Corporation
1725 Jefferson Davis Highway
Arlington, VA 22202

Leonard Robert Raish
Fletcher Heald & Hildreth, PLC
1300 North 17th Street
11th Floor
Rosslyn, VA 22209-3801
Counsel for the Fixed Point-to-Point
Communications Section, Network
Equipment Division of the
Telecommunications Industry Assoc.,
Digital Microwave Corporation, and
Harris Corporation-Farinon Div.

Paul E. Misener
Wiley Rein & Fielding
1776 K Street, NW
Washington, DC 20006
Counsel for Texas Instruments, Inc.

Peter M. Connolly Koteen & Naftalin 1150 Connecticut Avenue, NW Washington, DC 20036 Counsel for Telephone and Data Systems, Inc.

Joseph A. Godles W. Kenneth Ferree Goldberg Godles Wiener & Wright 1229 19th Street, NW Washington, DC 20036 Counsel for PanAmSat Corporation

John F. Beasley William B. Barfield Jim O. Llewellyn BellSouth Corporation 1155 Peachtree Street, NE Suite 1800 Atlanta, GA 30309-3610 Charles P. Featherstun
David G. Richards
1133 21st Street, NW
Suite 900
Washington, DC 20036
Counsel for BellSouth Corporation,
BellSouth Telecommunications,
Inc., and BellSouth Enterprises,
Inc.

William A. Graven
Entertainment Made Convenient
("Emc³") U.S.A., Inc.
8180 Greensboro Drive
Suite 1000
McLean, VA 22102

Kristin A. Ohlson Pacific Telesis Wireless Broadband Services 2410 Camino Ramon Suite 100 San Ramon, CA 94583

James L. Wurtz Margaret E. Garber Pacific Telesis Group - Washington 1275 Pennsylvania Avenue, NW Washington, DC 20004

John M. Schill RioVision, Inc. P.O. Box 1065 1800 East Highway 83 Weslaco, TX 78596

John G. Lamb, Jr. Northern Telecom Inc. 2100 Lakeside Boulevard Richardson, TX 75081-1599 Stephen L. Goodman
Halprin Temple Goodman & Sugrue
1100 New York Avenue, NW
Suite 650, East Tower
Washington, DC 20005
Counsel for Northern Telecom Inc.

Leonard J. Kennedy
Laura H. Phillips
Christina H. Burrow
Dow Lohnes & Albertson
1255 23rd Street, NW
Suite 500
Washington, DC 20037
Counsel for Cox Enterprises, Inc.,
Comcast Corporation, and
Jones Intercable, Inc.

Douglas A. Gray Program Manager Microwave Communication Group Hewlett-Packard Company 1501 Page Mill Road, 4A-F Palo Alto, CA 94304

Frank Michael Panek 2000 West Ameritech Center Drive Room 4H84 Hoffman Estates, IL 60196 Counsel for Ameritech

Cheryl A. Tritt
Diane S. Killory
Eric N. Richardson
Morrison & Foerster
2000 Pennsylvania Avenue, NW
Suite 5500
Washington, DC 20006
Counsel for Satellite Industry
Association

Richard S. Wilensky
Middleberg Riddle & Gianna
2323 Bryan Street
Suite 1600
Dallas, TX 75201
Counsel for ComTech Associates, Inc.

Harold K. McCombs, Jr.
Janice L. Lower
Barry F. McCarthy
Michael R. Postar
Tanja M. Shonkwiler
Duncan Weinberg Miller & Pembroke
1615 M Street, NW
Suite 800
Washington, DC 20036

J. Michael Rhoads President M3 Illinois Telecommunications Corp. P.O. Box 292557 Kettering, OH 45429

Marilyn Mohrman-Gillis
Lonna M. Thompson
Association of America's Public
Television Stations
1350 Connecticut Avenue, NW
Suite 200
Washington, DC 20036

Paula A. Jameson Gregory Ferenbach Public Broadcasting Service 1320 Braddock Place Alexandria, VA 22314

Jeffrey A. Krauss, Ph.D. Telecommunications and Technology Policy 17 West Jefferson Street Suite 106 Rockville, MD 20850 Paul J. Sinderbrand
Sinderbrand & Alexander
888 16th Street, NW
5th Floor
Washington, DC 20006-4103
Counsel for Wireless Cable Association
International, Inc.

Donald C. Rowe
New England Telephone and
Telegraph Company and
New York Telephone
1111 Westchester Avenue
White Plains, NY 10604
Counsel for NYNEX

Gene A. Robinson Senior Fellow Texas Instruments Inc. P.O. Box 650311, MS 3933 Dallas, TX 75265

John G. Raposa HQE3J27 GTE Service Corporation P.O. Box 152092 Irving, TX 75015-2092

Gail L. Polivy GTE Service Corporation 1850 M Street, NW Suite 1200 Washington, DC 20036

Daniel L. Brenner Loretta P. Polk 1724 Massachusetts Avenue, NW Washington, DC 20036 Counsel for the National Cable Television Association, Inc.

Charles F. Newby Vice President Tital Information Systems 3033 Science Park Road San Diego, CA 92121 John P. Janka Steven H. Schulman Latham & Watkins 1001 Pennsylvania Avenue, NW Suite 1300 Washington, DC 20004

Lon C. Levin American Mobile Satellite Corp. 10802 Parkridge Boulevard Reston, VA 22091

Philip Malet
Pantelis Michalopoulos
Colleen Sechrest
Steptoe & Johnson
1330 Connecticut Avenue, NW
Washington, DC 20036
Counsel for Motorola, Inc. and Iridium,
Inc.

Norman P. Leventhal Raul R. Rodriguez Stephen D. Baruch Bernard A. Solnik Leventhal Senter & Lerman 2000 K Street, NW Suite 600 Washington, DC 20006-1809 Counsel for TRW Inc.

Charles T. Force
Associate Administrator for Space
Communications
NASA Headquarters
Washington, DC 20546

Philip V. Otero Alexandria P. Humphrey GE American Communications, Inc. 1750 Old Meadow Road McLean, VA 22102 Judith R. Maynes Elaine R. McHale AT&T Corporation 295 North Maple Avenue Basking Ridge, NJ 07920

Peter A. Rohrbach Karis A. Hastings Hogan & Hartson, LLP 555 Thirteenth Street, NW Washington, DC 20004 Counsel for GE American Communications, Inc.

Thomas J. Keller
Julian L. Shepard
Verner Liipfert Bernhard
McPherson and Hand, Chartered
901 15th Street, NW
Suite 700
Washington, DC 20005
Counsel for Orion Network Systems,
Inc.

Andrew D. Lipman
Margaret M. Charles
Swidler & Berlin, Chartered
3000 K Street, NW
Suite 300
Washington, DC 20007
Counsel for Andrew Corporation

Perry W. Haddon Vice President GHz Equipment Company, Inc. 1834 E. Baseline Road Suite 202 Tempe, AZ 85283-1508

Michael R. Gardner
The Law Offices of Michael R.
Gardner, PC
1150 Connecticut Avenue. NW
Suite 710
Washington, DC 20036
Counsel for CellularVision

Philip L. Verveer
Michele R. Pistone
Willkie Farr & Gallagher
1155 21st Street, NW
Suite 600
Washington, DC 20036-3384
Counsel for Loral Aerospace Holdings,
Inc.

Douglas Dwyre President Loral/QUALCOMM Partnership, LP Globalstar 3200 Zanker Road P.O. Box 640670 San Jose, CA 95164-0670

Leslie A. Taylor Leslie Taylor Associates 6800 Carlynn Court Bethesda, MD 20817-9341 Counsel for Loral/QUALCOMM Partnership, LP

Kathleen Q. Abernathy
David A. Gross
1818 N Street. NW
Suite 800
Washington, DC 20036
Counsel for AirTouch
Communications, Inc.

Michael D. Kennedy Barry Lambergman Motorola, Inc. 1350 I Street, NW Washington, DC 20005

James G. Ennis
Patricia A. Mahoney
F. Thomas Tuttle, Dep. Gen. Counsel
Iridium, Inc.
1401 H Street, NW
Washington, DC 20005

Warren Richards US Department of State 2201 C Street, NW 4th Floor/CIP Washington, DC 20520

Richard Parlow NTIA Department of Commerce 14th Street & Constitution Ave., NW Washington, DC 20230 William Hatch NTIA Department of Commerce 14th Street & Constitution Ave., NW Washington, DC 20230

International Transcription Service 1919 M Street, NW Room 246 Washington, DC 20554

Eileen O'Hara

^{*}Via Hand Delivery